

INTERNATIONAL SEARCH REPORT

International Application No.

PCT/EP2004/014573

A. CLASSIFICATION OF SUBJECT MATTER

A61K39/00 A61K48/00 A61P35/00 A61P27/00 A61P29/00
A61P43/00

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

A61K A61P

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, BIOSIS, EMBASE, SCISEARCH, PAJ, WPI Data

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	WO 03/037931 A (AMERSHAM BIOSCIENCES CORP; SHANNON, MARK; PHAN, THUYMY) 8 May 2003 (2003-05-08) page 5, lines 14-20 page 7, lines 5-12 page 48, lines 5-9 page 81, lines 15-20 page 92, line 33 page 86, lines 1-5 page 119, lines 20-25 page 127, lines 17,18 page 138, lines 25-35	1-21
Y	WO 99/66038 A (PHARMACIA & UPJOHN AB; HOLMGREN, LARS; TROYANOVSKY, BORIS) 23 December 1999 (1999-12-23) page 9, lines 25-29 claim 29	1-21
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☒ Further documents are listed in the continuation of box C.☒ Patent family members are listed in annex.

* Special categories of cited documents:

- *A* document defining the general state of the art which is not considered to be of particular relevance
- *E* earlier document but published on or after the international filing date
- *L* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- *O* document referring to an oral disclosure, use, exhibition or other means
- *P* document published prior to the international filing date but later than the priority date claimed

T later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

X document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

Y document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art

* & * document member of the same patent family

Date of the actual completion of the international search

29 July 2005

Date of mailing of the international search report

20. 12. 2005

Name and mailing address of the ISA

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C.(Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	<p>TROYANOVSKY B ET AL: "Angiomotin: An angiostatin binding protein that regulates endothelial cell migration and tube formation"</p> <p>THE JOURNAL OF CELL BIOLOGY, ROCKEFELLER UNIVERSITY PRESS, US, vol. 152, no. 6, 19 March 2001 (2001-03-19), pages 1247-1254, XP002239904 ISSN: 0021-9525 the whole document</p>	1-21
Y	<p>BRATT A ET AL: "Angiomotin belongs to a novel protein family with conserved coiled-coil and PDZ binding domains"</p> <p>GENE: AN INTERNATIONAL JOURNAL ON GENES AND GENOMES, ELSEVIER SCIENCE PUBLISHERS, BARKING, GB, vol. 298, no. 1, 18 September 2002 (2002-09-18), pages 69-77, XP004390057 ISSN: 0378-1119 the whole document</p>	1-21
Y	<p>LEVCHENKO TETYANA ET AL: "Loss of responsiveness to chemotactic factors by deletion of the C-terminal protein interaction site of angiomotin."</p> <p>JOURNAL OF CELL SCIENCE, vol. 116, no. 18, 15 September 2003 (2003-09-15), pages 3803-3810, XP002338350 ISSN: 0021-9533 the whole document</p>	1-21
Y	<p>JIANG W G ET AL: "Angiomotin and angiomotin like proteins, their expression and correlation with angiogenesis in human breast cancer."</p> <p>BREAST CANCER RESEARCH AND TREATMENT, vol. 82, no. Supplement 1, 2003, pages S134-S135, XP009051383 & 26TH ANNUAL SAN ANTONIO BREAST CANCER SYMPOSIUM; SAN ANTONIO, TX, USA; DECEMBER 03-06, 2003 ISSN: 0167-6806 the whole document</p>	1-21

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International Application No
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C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	LI YIWEN ET AL: "Vaccination against angiogenesis-associated antigens: A novel cancer immunotherapy strategy." CURRENT MOLECULAR MEDICINE (HILVERSUM), vol. 3, no. 8, December 2003 (2003-12), pages 773-779, XP009051499 ISSN: 1566-5240 the whole document	1-21
Y	SCAPPATICCI FRANK A: "The therapeutic potential of novel antiangiogenic therapies." EXPERT OPINION ON INVESTIGATIONAL DRUGS. JUN 2003, vol. 12, no. 6, June 2003 (2003-06), pages 923-932, XP002338353 ISSN: 1354-3784 the whole document	1-21
Y	BROSSART PETER ET AL: "Dendritic cells in cancer vaccines" EXPERIMENTAL HEMATOLOGY (CHARLOTTESVILLE), vol. 29, no. 11, November 2001 (2001-11), pages 1247-1255, XP002338354 ISSN: 0301-472X the whole document	1-21

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Box II Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☒ Claims Nos.: 1-3 and 5-21 (all partially)
because they relate to subject matter not required to be searched by this Authority, namely:
Although claims 2 and 5-21 are directed to a method of treatment of the human/animal body, the search has been carried out and based on the alleged effects of the compound/composition.
2. ☐ Claims Nos.:
because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:
3. ☐ Claims Nos.:
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box III Observations where unity of invention is lacking (Continuation of item 3 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

see additional sheet

1. ☐ As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.
2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:
4. ☒ No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:
INVT 1: claims 1, 2, 3, 5-21 (all partially) and INVT 7: claim 4

Remark on Protest

- ☐ The additional search fees were accompanied by the applicant's protest.
☐ No protest accompanied the payment of additional search fees.

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

1. claims: 1, 2, 3 (all partially), 5-21 (all partially)

Concern the use of an angiomin molecule or fragments thereof or of a polynucleotide encoding an angiomin molecule in the manufacture of a vaccine for vaccinating a subject at a risk of an angiogenesis-related disorder, wherein said disorder is cancer or a solid tumor; a method of eliciting an immune response in a human (eventually at risk or suffering from cancer or from a solid tumor) by administering a vaccine comprising an angiomin molecule or a polynucleotide encoding an angiomin; a method of generating an immune response against angiomin in a mammal comprising stimulating ex-vivo immune cells collected from the mammal and transferring the stimulated cells back into the mammal in order to, therapeutically or prophylactically, inhibit the onset or progress of an angiogenesis-related disorder, particularly, the onset or progress of a malignant disease, said disease being cancer or a solid tumor.

2. claims: 1, 2, 3 (all partially), 5-21 (all partially)

Concern the use of an angiomin molecule or fragments thereof or of a polynucleotide encoding an angiomin molecule in the manufacture of a vaccine for vaccinating a subject at a risk of an angiogenesis-related disorder, wherein said disorder is hemangioma; and a method of eliciting an immune response in a human (eventually at risk or suffering from hemangioma) by administering a vaccine comprising an angiomin molecule or a polynucleotide encoding an angiomin; a method of generating an immune response against angiomin in a mammal comprising stimulating ex-vivo immune cells collected from the mammal and transferring the stimulated cells back into the mammal in order to, therapeutically or prophylactically, inhibit the onset or progress of an angiogenesis-related disorder, particularly, the onset or progress of a malignant disease, said disease being hemangioma.

3. claims: 1, 2, 3 (all partially), 5-21 (all partially)

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

Concern the use of an angiomin molecule or fragments thereof or of a polynucleotide encoding an angiomin molecule in the manufacture of a vaccine for vaccinating a subject at a risk of an angiogenesis-related disorder, wherein said disorder is ocular neovascularization, diabetic retinopathy or macular degeneration; and a method of eliciting an immune response in a human (eventually at risk or suffering from the ocular disorders just mentioned) by administering a vaccine comprising an angiomin molecule or a polynucleotide encoding an angiomin; a method of generating an immune response against angiomin in a mammal comprising stimulating ex-vivo immune cells collected from the mammal and transferring the stimulated cells back into the mammal in order to, therapeutically or prophylactically, inhibit the onset or progress of an angiogenesis-related disorder, particularly, the onset or progress of a malignant disease, said disease being ocular neovascularization, diabetic retinopathy or macular degeneration.

4. claims: 1, 2, 3 (all partially), 5-21 (all partially)

Concern the use of an angiomin molecule or fragments thereof or of a polynucleotide encoding an angiomin molecule in the manufacture of a vaccine for vaccinating a subject at a risk of an angiogenesis-related disorder, wherein said disorder is rheumatoid arthritis; and a method of eliciting an immune response in a human (eventually at risk or suffering from arthritis) by administering a vaccine comprising an angiomin molecule or a polynucleotide encoding an angiomin; a method of generating an immune response against angiomin in a mammal comprising stimulating ex-vivo immune cells collected from the mammal and transferring the stimulated cells back into the mammal in order to, therapeutically or prophylactically, inhibit the onset or progress of an angiogenesis-related disorder, particularly, the onset or progress of a malignant disease, said disease being rheumatoid arthritis.

5. claims: claims 1, 2, 3 (all partially), 5-21 (all partially)

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

Concern the use of an angiomin molecule or fragments thereof or of a polynucleotide encoding an angiomin molecule in the manufacture of a vaccine for vaccinating a subject at a risk of an angiogenesis-related disorder, wherein said disorder is an inflammatory condition selected from psoriasis, chronic inflammation of the intestines and asthma; and a method of eliciting an immune response in a human (eventually at risk or suffering from said inflammatory disorders) by administering a vaccine comprising an angiomin molecule or a polynucleotide encoding an angiomin; a method of generating an immune response against angiomin in a mammal comprising stimulating ex-vivo immune cells collected from the mammal and transferring the stimulated cells back into the mammal in order to, therapeutically or prophylactically, inhibit the onset or progress of an angiogenesis-related disorder, particularly, the onset or progress of a malignant disease, said disease being an inflammatory condition selected from psoriasis, chronic inflammation of the intestines and asthma. Attention is drawn to the fact that, given the fact that the three inflammatory diseases mentioned above have a very different pathophysiology, this invention comprises three sub-inventions.

6. claims: 1, 2, 3 (all partially), 5-21 (all partially)

Concern the use of an angiomin molecule or fragments thereof or of a polynucleotide encoding an angiomin molecule in the manufacture of a vaccine for vaccinating a subject at a risk of an angiogenesis-related disorder, wherein said disorder is endometriosis; and a method of eliciting an immune response in a human (eventually at risk or suffering from endometriosis) by administering a vaccine comprising an angiomin molecule or a polynucleotide encoding an angiomin; a method of generating an immune response against angiomin in a mammal comprising stimulating ex-vivo immune cells collected from the mammal and transferring the stimulated cells back into the mammal in order to, therapeutically or prophylactically, inhibit the onset or progress of an angiogenesis-related disorder, particularly, the onset or progress of a malignant disease, said disease being endometriosis.

7. claim: claim 4

Concerns a vaccine effective against blood vessel formation comprising an effective amount of an angiomin or a polynucleotide encoding an angiomin.

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

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Patent document cited in search report		Publication date	Patent family member(s)	Publication date
WO 03037931	A	08-05-2003	EP 1440089 A2	28-07-2004
			GB 2397577 A	28-07-2004
WO 9966038	A	23-12-1999	AT 295417 T	15-05-2005
			AU 769933 B2	12-02-2004
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			CN 1626552 A	15-06-2005
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			PL 344979 A1	19-11-2001
			PT 1088069 T	30-09-2005
			TR 200003695 T2	21-06-2001